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XIX.—On Lamellicorn Coleoptera from Portuguese West Africa, with Descriptions of new Species. By GILBERT J. ARROW.

THE British Museum collection contains a considerable number of interesting Coleoptera from the little-known region of Angola and the interior of Portuguese West Africa. A few of the Lamellicornia are here described, together with a new genus and some observations on species previously known.

Copriddæ.

Copris draco, sp. n.

C. Elphenori et *C. Anceo* affinis, sed multo major, clypeo fere integro, elytris politis, leviter punctato-striatis; maris capite cornu valido curvato, dimidio superiore intus utrinque perspicue serrato, thorace rugoso, medio multo elevato, utrinque excavato et lateraliter lamina maxima alæiformi prædito; fæminæ capite cornu magno bifido, ramis retro curvatis, spatium includentibus fere ad caput æquali, prothorace medio paulo elevato, lateribus minute carinatis.

Long. 29–32 mm.

Hab. Bihe.

This is the largest and most remarkably accoutred species of its large genus yet known. It is allied to *C. Elphenor*, Klug, and *C. Ancus*, Oliv., and represents in its armature a great development of that type. The clypeus is relatively a little less wide than in those species and almost uninterruptedly curved. It is narrower in the male than in the female and the thorax is correspondingly contracted in front. In both sexes the head bears a horn, but without any similarity between the two. That of the male is over 20 mm. long in our specimen, compressed laterally so as to be rectangular in section for most of its length, but beyond the middle it is hollowed out on its inner face and the edges of the channel are strongly dentate. The horn of the female has the form of a crescent attached by a short footstalk to the front of the



Copris draco, ♂ and ♀, nat. size.

head. The two extremities are about 8 mm. apart in our examples and the footstalk about 3 mm. long. The thorax in both sexes is coarsely rugose except for a small median posterior area, which is moderately punctured. In the male this median part is strongly humped and divided in front, where it terminates in three obliquely placed teeth on each side. The lateral margin in the same sex is furnished at the middle with a large leaf-like or wing-like process, curving

upwards and forwards and tapering to a point. Immediately behind this the thoracic margin is deeply excised, and between the wing-like processes and the dorsal hump are deep and very rugose excavations. In the female the lateral processes are very slightly and the dorsal hump rather more strongly indicated. In other respects the sexes are alike. The elytra are highly polished, with feebly punctured striæ, and the pygidium is thinly and shallowly but uniformly punctured.

Catharsius peregrinus, Harold.

We have received this very peculiar species from Bihe and San Salvador. It is remarkable for its depressed form, elongate clypeus, and the proportionately small development of its hind body.

Gymnopleurus azureus, Fabr.

Specimens from Bihe, agreeing with the description of *G. olivaceus*, Qued., seem to belong to this widely distributed Fabrician species. *G. insidiosus*, Péring., is, I believe, also inseparable from it.

Coptorrhina angolensis, sp. n.

Nigra, opaca, sat convexa, capite crebre rugoso, elypeo bidentato, dentibus paulo productis; prothorace crebre punctato-rugoso, postice elevato, parte elevata leviter 4-acuminata, lateribus subtiliter marginatis, regulariter arcuatis, antice paulo divergentibus; elytris dense punctatis, subtilissime striatis, lateribus pone humeros sinuatis.

Long. 12-16 mm.

Hab. Huilla (*Welwitsch*).

This species is very closely related to *C. auspicata*, Péring., with which it almost exactly agrees in size, sculpture, and general form. The prothorax, however, is slightly different in shape. In the male of *C. auspicata* it is broadest behind, the sides slightly approximating anteriorly in a sinuous line. In the new species, on the contrary, there is a slight widening towards the front and the sides are uniformly curved. The raised margin is extremely narrow, and not, as in the other species, widened at its posterior part. The dorsal elevation does not extend quite so far forward, and exhibits four angulations, the slight outer ones being entirely absent in *C. auspicata*. This difference is traceable also in the females.

Aphodiidæ.

Notocaulus laticollis, sp. n.

Piceo-niger, opacus, capite antice lævi, obtuse bidentato, fronto longitudinaliter tricarinata, carina media abbreviata, posticeque bituberculata, vertice crebre punctulato; prothorace transverso, carinis tribus integris duobusque lateralibus pone medium evanescentibus, angulis anticis obtusis, posticis rectis, lateribus valde irregularibus, interstitiis duobus interioribus grosse irregulariter punctatis, exterioribus leviter punctulatis; utroque elytro fortiter tricarinato, interstitiis lævibus, bistriatis, striis subtiliter punctatis; abdomine grosse varioloso.

Long. 4.5 mm.

Hab. Huilla (*Wehwitsch*).

The unique specimen of this species is rather larger than the type of *N. nigropiceus*, Qued., in M. Oberthür's collection, with which I have kindly been enabled to compare it. Its thorax is relatively rather shorter and much less constricted in front. The front angles in that form are very prominent, but in *N. laticollis* they are truncated and so each replaced by two obtuse angles. The front margin is thickened at each end for a short distance, and at each end of the posterior margin a right angle is formed by a curved longitudinal carina about half the length of the thorax. The broad lateral flange vanishes at about the middle of this carina. In *N. nigropiceus* the posterior carina is continued until it meets the anterior carina, and the outer flange is narrower and more sinuated. The two median thoracic interspaces are coarsely punctured, but scarcely so coarsely as in the allied species, and the outer spaces, which in that are almost smooth, are rather sparsely pitted. There are three strong carinæ on each elytron, each bordered by finely punctured striæ. The six-jointed abdomen is very coarsely pitted, but less coarsely than in *N. nigropiceus*.

Hybosoridæ.

Phæochrous dispar, Qued.

Both sexes of this remarkable species, of which the elytra of the female are shining and those of the male sooty, were brought from Garenganze.

The imperfect female specimen of unknown origin called *Silphodes dubia* by Westwood nearly resembles the female of *P. dispar*, but is rather smaller, the sides of the prothorax are rather more curved and the punctures upon its disk rather less fine.

Melolonthidæ.

ARÆOHOPLIA, gen. nov.

Corpus gracile, paulo depressum. Clypeus planus, lateribus rectis, paulo convergentibus, antice abrupte productis, virguliformibus. Labium omnino corneum, angustum. Palpi robusti, longi. Antennæ 9-articulatæ. Pedes longi, tibiis posticis (maris præcipue) inflatis. Ungues pedum 4 anteriorum duplici, fissi, pedum 2 posteriorum unici, integri.

Type, "*Pachycnema*" *Dekindti*, Nonfried.

Both sexes of this very peculiar insect were collected by Dr. Welwitsch at Huilla. Herr Nonfried appears to have described the species from the male alone, the female having the hind tibiæ only slightly swollen and the single hind claw of normal size. The form of the hind tibiæ evidently led him to place it in *Pachycnema*, with which it has really no near relationship. Whereas that genus is the type of the suctorial division of the Hopliinæ with membranous ligula, *Aræohoplia* belongs to the true Hopliinæ, distinguished by entirely horny mouth-organs of the usual biting type. Its most remarkable feature is the form of the clypeus, the outer margins of which are drawn out into long straight compressed rods, as in the Cetoniid genus *Gnathocera*.

Rutelidæ.

Anomala cerea, sp. n.

Elongata, robusta, testacea, clypeo. tibiis posticis, anticorum marginibus externis tarsisque omnibus piccis; capite sat fortiter punctato, clypeo brevi, rugoso, margine valde reflexo, nigro; prothorace subtilissime haud crebre punctato, lateribus leviter arcuatis, haud angulatis, antice approximatis; scutello lato, vix angulato, subtiliter punctato; elytris haud costatis, lævissime punctatis, punctis plerumque irregularibus, seriebus 4 geminatis ordinatis; pygidio modice punctato; pectore pedibusque sat longo fulvo-hirtis; abdomine nitido, parum punctato; unguibus majoribus pedum anticorum, feminaeque pedum mediorum fissis.

Long. 15-18 mm.

Hab. Bihe, Garenganze, Bembe.

This is another member of the African group of *Anomala*, pale in colour, with darker tarsi and tibiæ, in which the male has the larger claw of the front foot only cleft and the female those of the front and middle feet. The other species of the group are *A. immatura*, Boh., *clypeata*, Arr., *transvalensis*, Arr., *Distanti*, Arr., *ustulatipes*, Fairm. (= *rufa*, Kolbe, *intrusa*,

Pér.), *pinguis*, Pér., *zambesicola*, Pér., *repensa*, Pér., and *denuda*, Arr. *A. cerea* is the largest and most stoutly built of them all, the female being rather larger and more robust than the male and the puncturation rather stronger.

From specimens in our collection I believe Mr. Péringuey has been misled in recording the claw-structure of *A. repensa* and *intrusa*, an occurrence which is very liable to happen, as specimens abnormal in this respect are not uncommon. In this way I was myself misled into describing the claws of *Nongoma calcarata*, Arr., as differing sexually, whereas they are normally alike.

Anomala funebris, sp. n.

Nigra, capite, prothorace (margine postico angulisque posticis exceptis) et pedibus (femoribus posticis tarsisque omnibus exceptis) læto flavis; pygidio vel rufo-flavo vel fusco, medio pallidiore; capite dense, fere rugose, punctato, clypeo brevi, margine antico recto; prothorace nitido, subtiliter late punctato, lateribus sat regulariter arcuatis, margine postico leviter trisinuato; scutello lato, fere semicirculari, laxè irregulariter punctato; elytris nitidis, irregulariter punctatis, costis parum perspicuis; pygidio crebre transversim rugoso-punctato; pectore fusco, fulvo-hirto.

♂. Tibiis anticis latis, bidentatis, pedum 4 anteriorum ungue majore fisso.

Long. 15-16 mm.

Hab. Garenganze, Bihe.

Seven specimens of this species are all males. In the absence of the other sex I should have refrained from describing it, but for its very well-marked and unusual colouring. The head and thorax are bright yellow, except for the hind margin and a roughly triangular patch in each hind angle of the latter, which are black. The elytra are entirely jet-black and shining, their surface rather thickly punctured. There are no striæ, but some of the punctures form quite indistinct series. The pygidium is closely and aciculatedly punctured, reddish testaceous, and generally more or less infuscate at the sides.

Nannopopillia Damaræ, Ohaus.

A good series of a very variable insect, which I identify with Dr. Ohaus's Damaraland form, was brought from Huilla by Dr. Welwitsch. Only a few of them show the type of colouring described by Dr. Ohaus, in which there is a large yellow stripe upon each elytron. The greater number have

the elytra testaceous, but slightly paler in the middle, with the suture black and a tendency to a darkening round the scutellum. There is also a variety (male) in which the elytra are entirely black, and no doubt all intermediates occur. The notable disparity in breadth between the sexes given by Dr. Ohaus is not confirmed by our larger series, nor is there a sexual difference in the thickness of the hairy clothing. The latter is scarcely closer at the sides of the segments, as stated by Dr. Ohaus.

Dynastidæ.

Pycnoschema nigra, sp. n.

Modice convexa, nigra, supra sat grosse punctata, subtus rufo-hirta, capite ante oculos utrinque acuto angulato.

Long. 13-15.5 mm.

♂. Capite impresso, grosse punctato, cornu gracile armato; prothorace transverso, convexo, æqualiter punctato, antice paulo excavato, postice lævissime longitudinaliter impresso, lateribus fortiter, fere æqualiter arcuatis, margine posteriore utrinque profunde impresso; scutello minute punctulato; elytris linea impressa suturali, punctis grossis parum profundis aliisque minutis interspersis; pygidio valde convexo, glabro, basi et lateribus subtiliter punctato-rugoso.

♀. Capite grosse punctato-rugoso, carina transversa medio magis elevata armato; prothorace minus transverso et convexo, grosse et crebre punctato, lateribus minus æqualiter arcuatis, margine posteriore trisinuato, utrinque impresso; elytris linea suturali punctisque similibus sed fortioribus impressis; pygidio ubique minute rugoso, sat longe rufo-hirto.

Hab. Huilla (*Dr. Welwitsch*).

A small species, rather larger than the South-African *P. Corydon*, Oliv., and quite black above. The cephalic horn of the male is rather slender and a little compressed laterally, and is represented only by a very slight prominence in the female. The thoracic excavation in the male is very small in our only example of that sex and its posterior margin is not sharply defined.

Pycnoschema polita, sp. n.

Paulo depressa, rufo-picea vel rufa, supra polita, fero impunctata, subtus fulvo-setosa, capite ante oculos utrinque acute angulato.

Long. 18-21 mm.

♂. Capite rugoso-punctato, cornu compresso, valde curvato, armato; prothorace polito, impunctato, leviter convexo, antice parparum excavato ibique paulo punctato, lateribus arcuatis, haud

angulatis, angulis anticis fere rectis, posticis obtusis, margine postico trisinuato; scutello parce subtilissime punctulato; elytris brevibus, politis, prope suturam et latera solum lineis punctorum obsoletorum; pygidio convexo, crebre punctato.

♀. Capite punctato-rugoso, carina transversa, medio fere angulata munito; prothorace leviter punctato, punctis dorsi postice fere obsoletis, lateribus medio fere angulatis, margine postico minus sinuato; elytris politis, obsolete punctato-striatis; pygidio dense fulvo-hirto.

Hab. Bihe.

This is a very distinct species owing to the extremely smooth and glossy surface of the prothorax and elytra, especially in the male. Of the four specimens in our collection the two females are a lighter red colour than the male, but this difference may not be constant. The male, as is usually the case in the genus, is shorter and more parallel-sided than the female. It is also almost devoid of punctures upon the thorax and elytra. The thorax is only slightly excavated in front and the hind margin of the cavity is not at all produced or carinated. In the female the sides of the thorax are less uniformly curved, there are punctures which become denser at the front and sides, and the elytra are obsoletely striate-punctate.

All the males in this and the allied genera have the front tarsi thickened and their inner claws strongly hooked and very broad.

The genus *Astaborus*, which has not hitherto been associated with *Pycnoschema* and in the Munich Catalogue is widely separated from it, is really a section in which the thoracic armature has reached its greatest development. As the number of known species increases it may very possibly become inseparable from *Pycnoschema*. I have identified both sexes of *Astaborus Antinorii*, Gestro, the female of which has a curved cephalic horn and bifid thoracic process very much as in the male, but the former is less flattened and the latter less produced and very strongly punctured all over. As there can be no doubt that the very nearly related typical species, *A. armatus*, Thoms., has a similar female, the armature of this sex forms the best distinctive character of *Astaborus*. There is also a slight elongation of the front tibiæ in the male, a feature which is not found in the known species of *Pycnoschema*.

M. Raffray seems to have overlooked the existence of the latter genus when he described four species nearly related to its typical forms, which he placed in *Astaborus* as a new section of that genus. The two species of *Astaborus* I have

mentioned are the only ones really belonging to it. Of *Pycnoschema* seventeen species in all are now known, and those remaining to be discovered in all parts of Africa are no doubt very numerous.

Cetoniidæ.

Sisyrphora cicatricosa, Burm.

Specimens from Huilla and Bihe closely allied to the South-African *S. tomentosa*, G. & P., appear to belong to Burmeister's *Anoplochilus cicatricosus*, which was attributed by him to India, but is referred in the Munich Catalogue to Senegal. It differs from *S. tomentosa* in the absence of the pale markings of the upper surface and the existence of smooth longitudinal ridges upon the elytra. The scutellum, however, is not very obtuse, as it is described by Burmeister, and it is rugose except for smooth lateral and median lines.

Myoderma pusilla, sp. n.

Nigro-picea, vertice prothoraceque nigris, supra glabra, nitida, subtus cum pygidio longe fulvo-hirta; clypeo subquadrato, margine late reflexo, arcuato, medio vix producto, disco parce punctato; prothorace quam longitudinem paulo latiore, sat regulariter haud crebre punctato, antice emarginato, lateraliter et postice sat regulariter curvato, angulis omnibus obtusis; scutello magno, punctato; elytris fortiter sed paulo irregulariter striatis, interstitiis convexis, subtilissime sat parce punctulatis, interstitiis 2^o et 4^o angustis, minus elevatis; pygidio valde convexo, antice subtilissime rugoso, postice parce transversim strigoso et fulvo-hirto.

Long. 10-11 mm.

Hab. Bihe, Pungo Andongo (*Dr. Ansorge*).

This seems to be an abundant species, as I have seen a considerable number of it. It is smaller than any other described species of the genus, and its glabrous upper surface gives it a very distinctive appearance. It is clothed beneath with very coarse tawny hairs, but above is smooth and shining. The thorax is fairly coarsely but not thickly punctured and the elytra are almost devoid of punctures, only a few very fine ones being traceable upon the broad smooth costæ. The clypeus is not pointed, although the broadly turned up margin is slightly wider in the middle than at the sides.

Diploa tridens, sp. n.

Oblongo-ovata, obesa, fusco-nigra, corpore subtus pygidioque rufis, longe fulvo-hirtis, supra undique creberrime punctato, minute setoso, clypeo subquadrato, crebre punctato, margine valde reflexo, medio paulo angulato; prothorace densissime punctato, lateribus sat regulariter arcuatis, angulis omnibus obtusis, margine postico leviter trisinuato; scutello dense punctato; elytris convexis, vage costatis, subtiliter punctato-striatis atque rugoso-punctatis, lateribus ubique arcuatis; pygidio subtiliter rugoso, longe fulvo-hirto; pedibus piceis, fulvo-setosis, tibiis anticis acute tridentatis.

Long. 14·5-17·5 mm.

Hab. Bihe, Garenganze.

This form is identical in its general appearance with *D. (Ligyromorphus) rufiventris*, Arrow, inhabiting Mashonaland, but close examination reveals differences which are very slight but sufficient for their separation. The most easily recognizable is in the armature of the front tibiæ, which is alike in the two sexes, but constantly differs in the Eastern and Western forms. In *D. rufiventris* there are two broad and very blunt teeth, and a third is scarcely indicated. In *D. tridens* there are three well-developed teeth, and all are acutely pointed. The sculpture of the upper surface is rather less rugose in the Angola species. The punctures upon the pronotum are coarse and very dense, but are mostly distinct, not completely coalescing as in the Eastern species, and the sculpturing of the elytra is correspondingly rather less indefinite and rugose, producing a rather more shining appearance.

I described this genus as new in 1901, having overlooked the previous existence of *Diploa*, which was placed by its author, Herr Kolbe, in a different subfamily to the genus *Myoderma*, with which it is undoubtedly nearly related. I have not seen *Diploa proles*, Kolbe, but that insect has a bidentate front tibia, and is no doubt very closely allied to *D. rufiventris*, and possibly identical.

The genus *Xiphoscelis* no doubt has some affinity to these forms and should be placed in the Trichiinæ.

XX.—*Descriptions of new Mammals from Mount Ruwenzori.*
By OLDFIELD THOMAS.

THE first collection sent home by the members of the Ruwenzori Expedition contains examples of the following new species and subspecies. All were collected on Ruwenzori East, at altitudes from 6000' to 13,000'.